

## **STATEMENT OF LEGAL AND FACTUAL BASIS**

New River Solid Waste Management Area  
Pulaski County, Virginia  
Permit No. WCRO-21397  
AIRS ID No.: 51-155-00065

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, New River Resource Authority has applied for a Title V Operating Permit renewal for its solid waste disposal unit. The Department reviewed the application for permit renewal and prepared a draft/proposed Title V Operating Permit.

Engineer/Permit Contact: \_\_\_\_\_ Date: \_\_\_\_\_

Paul R. Jenkins  
Permit Engineer  
540-562-6822

Air Permit Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Michael J. Scanlan, Ph.D.  
Regional Air Permit Manager

## **FACILITY INFORMATION**

### **Permittee**

New River Resource Authority  
P.O. Box 1246  
Dublin, VA 24084

### **Responsible Official**

Joseph R. Levine, P.E., Executive Director

### **Facility**

New River Solid Waste Management Area  
7100 Cloyd's Mountain Road  
Pulaski County, Virginia

### **Contact Person**

Joseph R. Levine, P.E., Executive Director

**County-Plant Identification Number:** 51-155-00065

First Renewal of Title V Operating Permit

## **SOURCE DESCRIPTION**

NAICS Code: 562212 – Waste Treatment and Disposal – Solid Waste Landfill

SIC Code: 4953 – Refuse Systems: Establishments primarily engaged in the collection and disposal of refuse by processing or destruction or in the operation of incinerators, waste treatment plants, landfills or other sites for disposal or such materials.

**Landfilling/Managing Solid Waste:** The facility consists of a solid waste disposal unit. Solid waste is transported via trucks to the working face of the sanitary landfill for final disposal.

The facility does not have any underlying construction or state operating permits. The facility is considered a new source under Virginia regulations. 9 VAC 5-40-5800 applies only to facilities constructed prior to May 30, 1991. The facility was permitted for construction between May 30, 1991 and October 21, 1994. Facilities constructed during this time frame were not required to undergo permit review. During that time, emissions from landfills were considered fugitive. In the October 21, 1994, memorandum from John Sietz, it was concluded that the EPA's 1987 guidance was in error and stated that, because landfill gas could be collected, it could not be considered fugitive and that new landfills should be evaluated for PSD and non-attainment applicability. The memo also stated that landfills which had already been constructed should not

be reevaluated; the requirement to review landfill gas emissions (for permit applicability) only applied to landfills constructed or modified after the date of the memo.

The facility is a Title V source per NSPS Subpart WWW due to the design capacity of the landfill exceeding the threshold capacity for applicability. This source is not a major source of emissions at this time. The source is located in an attainment area for all pollutants, and is a PSD minor source. There have been no changes at the facility since issuance of the original Title V permit that has affected the applicability of this source to any additional requirements.

### **COMPLIANCE STATUS**

The facility was determined to be in compliance during its last inspection on August 16, 2007.

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emission units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
Process Units						
01	NA	Waste Disposal Units – (Areas A, B, C and D) Solid Waste Permit No. 548	$>2.5 \times 10^6 \text{ Mg}$ & $>2.5 \times 10^6 \text{ m}^3$ $(7.64 \times 10^6 \text{ Mg})$  Solid Waste Permit No. 548 for Areas A, B, C and D = $14,036,005 \text{ yd}^3$	NA	NA	NA

## EMISSIONS INVENTORY – Actual Emissions

2006 Actual Pollutant Emissions in Tons per Year								
	NMOCs	VOCs	HAPs	NO <sub>x</sub>	CO	SO <sub>2</sub>	TRS	PM <sub>10</sub>
Total	19.6	7.7	0.5	--	--	--	0.4	--

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Facility Wide**

### **Limitations**

**LFG Collection and Control System: Design and Operational Standards** - Within 30 months of the first annual emission rate report in which the Non-Methane Organic Compound (NMOC) emission rate equals or exceeds 50 megagrams per year, the permittee shall install a landfill gas collection and control system which:

- a. Is designed to handle the maximum expected gas flow rate from the entire area of the landfill;
- b. Collects gas from each area, cell or group of cells in which initial solid waste has been in place for a period of:
  1. 5 years or more if active; or
  2. 2 years or more if closed or at final grade;
- c. Collects gas at a sufficient extraction rate;
- d. Is designed to minimize off-site migration of subsurface gas;
- e. Reduces NMOC by 98 weight-percent or, for an enclosed combustion device, either reduces NMOC by 98 weight-percent or reduces the outlet concentration to less than 20 ppmv, dry, as hexane, at 3 percent oxygen.
- f. Maintains the methane concentration at the surface of the landfill at less than 500 ppmv above the background level.

(9 VAC 5-50-410, 40 CFR 60.752)

**Requirements When Reported NMOC Emission Rate > 50 Mg/yr** - If the reported NMOC emission rate, in the initial, annual or revised 5-yr report, is equal to or exceeds 50 megagrams per year, the permittee shall:

- a. submit a Landfill gas collection system and control plan, or
- b. within 180 days of the emission rate report, demonstrate, using a site specific NMOC concentration (Tier 2), that NMOC emissions do not equal or exceed 50 megagrams per year, submit a revised NMOC emission rate report, resume annual NMOC emission rate reporting, and retest the site specific NMOC concentration every 5 years.

(9 VAC 5-50-410, 40 CFR 60.757 and 40 CFR 60.754(a)(3))

**Requirements When NMOC Emission Rate > 50 Mg/yr (when using site specific  $C_{\text{NMOC}}$ )**

If, using a site specific NMOC concentration, the NMOC emission rate is equal to or exceeds 50 megagrams per year, the permittee shall:

- a. submit a Landfill gas collection system and control plan, or
- b. within 1 year of the emission rate report, demonstrate using a site specific methane generation constant (Tier 3), that NMOC emission do not equal or exceed 50 megagrams per year, submit a revised NMOC emission rate report, and resume annual NMOC emission rate reporting.

(9 VAC 5-50-410, 40 CFR 60.757 and 40 CFR 60.754(a)(4))

**LFG Collection and Control System Design Plan** - The landfill gas collection and control system design plan shall be submitted to EPA and the Air Compliance Manager, West Central Regional Office, within one year after submitting the NMOC emission rate report which reports an NMOC emission rate which equals or exceeds 50 megagrams per year.  
(9 VAC 5-50-410 & 40 CFR 60.757 (c))

**Solid Waste Permit Amendment** - If the permittee is required to install a gas collection and control system according to the provisions of 9 VAC 5-50-410 Subpart WWW, the permittee shall apply for a solid waste permit amendment in accordance with Part VII (9 VAC 20-80-480 et seq.) of 9 VAC 20 Chapter 80 (Solid Waste Management Regulations).  
(9 VAC 5-80-110 & 9 VAC 5 170-160)

**Title V Operating Permit Amendment** - If the permittee is required to install a gas collection and control system according to the provisions of 9 VAC 5-50-410 Subpart WWW, the permittee shall apply for a Title V operating permit significant permit revision within 90 days of date of approval of the gas collection and control plan.  
(9 VAC 5-80-230)

## **Monitoring**

The permittee is required to keep annual records of incoming waste. The facility must calculate its NMOC emissions annually, or project its annual emissions for a five year period, and verify annually that its waste acceptance rate is consistent with that used in its five year NMOC emission projection. Any inconsistencies in the waste acceptance rate, or NMOC emissions equal to or greater than 50 megagrams per year, require specific steps to be taken to demonstrate that NMOC emissions are less than the threshold value, or require submission of a landfill gas collection and control system design plan. The permit requires amendment of the Title V Operating permit and Solid Waste Management Facility permit if required.

## **Recordkeeping**

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

- a. Current maximum design capacity, current amount of refuse in place, and year by year refuse accumulation rates.
- b. Description, location, amount, and placement date of all non-degradable refuse including asbestos and demolition refuse placed in landfill areas which are excluded from landfill gas estimation and excluded from landfill gas collection and control.
- c. Installation date and location of all vents, wells and flares.
- d. Copies of all reports, notifications and emissions estimates.

## **Testing**

The permit does not specifically require the source to test periodically. However, if the projected NMOC emissions are in excess of the threshold value, the permittee can opt to test and determine a site specific methane generation rate. If that option is chosen, the testing must be repeated every five years to determine the NMOC emission rate, in lieu of installation of a landfill gas collection and control system. The Department and the EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

## **Reporting**

The permit requires notification and reporting required under the Federal Operating Permit program and 40 CFR 60.757 (NSPS Subpart WWW). Required reporting includes annual compliance certification, annual NMOC emissions report with an option to project emissions over a five year period, malfunction and deviation reporting, and submission of amended NMOC emission reports when threshold emission levels are exceeded. Reports must be sent to the EPA and the DEQ (Air Compliance Manager, West Central Regional Office).

## **Streamlined Requirements**

- NA

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-

annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within four daytime business hours.

### **STATE ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

- 9 VAC 5-50-130 Odor (New/ Modified Source)
- 9 VAC 5-60-300 Emission Standards for Toxic Pollutants (New/ Modified Source)

(9 VAC 5-80-110 N & 9 VAC 5-80-300)

### **FUTURE APPLICABLE REQUIREMENTS**

- None Identified
- MACT AAAA – NESHAP: Municipal Solid Waste Landfills specifically exempts area sources (uncontrolled emissions of less than 50 Mg/yr NMOC) – Federal Register/ Vol. 68. No. 11/ Thursday, January 16, 2003/ Rules and Regulations - II. Summary of the NESHAP A. Paragraph 2.

### **INAPPLICABLE REQUIREMENTS**

- None Identified

### **COMPLIANCE PLAN**

- NA

### **INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:



Emission Unit No.	Emission Unit Description	Citation <sup>1</sup>	Pollutant(s) Emitted	Rated Capacity
T01	Fixed Roof, Vertical Leachate Storage Tank	9 VAC 5-80-720 B	VOC	572,000 gallons
T02	Diesel Fuel Storage Tank	9 VAC 5-80-720 B	VOC	8,000 gallons
T03	Diesel Fuel Storage Tank	9 VAC 5-80-720 B	VOC	3,000 gallons
T04	Motor Oil Storage Tank	9 VAC 5-80-720 B	VOC	825 gallons
T05	Waste Oil Storage Tank	9 VAC 5-80-720 B	VOC	250 gallons
PCD-2	Two (2) LFG Passive Vent Flares	9 VAC 5-80-720C	NMOC, VOC, SO <sub>x</sub> , NO <sub>x</sub> , CO, PM	5.9 MMBtu/hr (Combined for both units)

<sup>1</sup>The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

## CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

## PUBLIC PARTICIPATION

The draft/proposed permit was advertised for public notice in the Roanoke Times on December 3, 2007. The required 30-day public notice period ended on January 2, 2008.

The EPA 45 day concurrent review period was November 30, 2007 through January 14, 2008. No comments were received.

This permit was advertised for *concurrent review*.